



Engineer II #01975

City of Virginia Beach – Job Description

Date of Last Revision: 11-21-2019

FLSA Status: Exempt

Pay Plan: Administrative

Grade: 13

City of Virginia Beach Organizational Mission & Values

The City of Virginia Beach exists to enhance the economic, educational, social and physical quality of the community and provide sustainable municipal services which are valued by its citizens. The City of Virginia Beach organization is based upon a belief in the democratic process of government. This belief provides meaningful ways for citizens, reflecting the diversity of our City, to contribute to the development of public policy. This process is enhanced by organizational values which guide member performance within the Virginia Beach Quality Service System. These Values define our desired organizational culture. We value quality customer service; teamwork; leadership and learning; integrity; commitment; and inclusion and diversity.

Class Summary

Perform a variety of engineering duties of a moderately complex nature which may include any combination of: project management, review and approval of commercial and residential site plans and subdivision plans; design and review of plans and specifications for highways and roadways, storm drainage and water and sanitary sewer; and supervise non-technical staff, field engineering and management support for operations and maintenance of public facilities.

Representative Work Functions and Responsibilities

Prepare designs, specifications, and contracts for municipal projects such as highway construction, bridge construction, infrastructure maintenance, pump stations, waterfront construction, dredging, beach nourishment, building construction, and sewer and water construction to enable the City to build, maintain and repair its infrastructure in a timely manner in accordance with sound engineering practices.

Administer construction and engineering contracts to ensure compliance with the contract provisions and protection of the City's interests; and negotiate and prepare change orders, maintain records, and prepare reports to ensure full documentation of all contract changes during construction in the event of litigation.

Review and inspect construction in progress to ensure the methods, materials, and equipment conform to approved standards.

Perform difficult engineering studies, including hydrologic studies to provide for sound engineering solutions to field problems.

Prepare investigative reports to help determine the proper course of action to take.

Review and approve subdivision plans to ensure accuracy and conformance with City Code requirements.

Conduct field inspections and interpret contract requirements.

Coordinate projects with developers, VDOT, and other City Departments to minimize field problems and facilitate construction.

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Prepare project cost estimates, monitor expenditures, and prepare fund transfer requests to protect the City's financial interests.

Supervise draftsmen, CAD technicians and/or inspectors to ensure the quality of both the design and construction.

Perform other job duties requiring skills, knowledge and physical requirements as demanded by those duties described or less. Individual assignments will be determined by the supervisor based on then current workloads and department needs.

Performance Standards

Efficiently administer construction and engineering contracts; ensure that plans, specifications, and construction projects adhere to city, state and federal regulations; maintain effective working relationships with division, department, city and state officials, developers, other professionals and the general public; resolve citizen problems in a courteous and timely manner; assure adequate project scope, budget, design and coordination; and ensure plans, specification and construction projects adhere to all City standards. Work will be regularly reviewed by either an Engineer IV or higher-level engineering position.

Minimum Qualifications

Requires a Bachelor's Degree from an Accreditation Board for Engineering and Technology (ABET) approved engineering or engineering technology program with possession of an E.I.T. (Engineer In Training) Certificate and two (2) years of progressive professional experience.

Special Requirements

All employees may be expected to work hours in excess of their normally scheduled hours in response to short-term department needs and/or City-wide emergencies.

Knowledge-Skills-Abilities Required to Perform Satisfactorily

A. Knowledge

1. Knowledge of modern design standards for application to a variety of municipal construction and/or maintenance projects. The following list of design standards represents the minimum requirement: City of Virginia Beach Design Standards and Specifications, CI Concrete Design Codes, AISC Steel Design Manual, SCS Flood Routing Procedure, Asphalt Institute Method of Pavement Design, VDOT Highway Design Standards and Specifications, State Erosion Control Manuals, VDOT Pavement Design Manuals, and VDOT Drainage Design Criteria.
2. Knowledge of City ordinances as they pertain to modern design standards and local engineering practices including the site plan, subdivision, zoning, erosion control, and flood plain ordinances. Knowledge of various City policies, procedures and standards.
3. Knowledge of modern procedures, principles and practices of engineering as currently gained through an accredited school of civil engineering such as hydrologic analysis, soil analysis and stabilization, writing technical reports, structural analysis, traffic engineering practices, concrete, steel, and wood construction and design techniques, highway design and construction, retaining wall design and construction, bridge design and construction, water and sanitary sewer design and construction, storm drainage design and construction, building systems design and construction.
4. Knowledge of infrastructure maintenance practices and principles and maintenance management systems.

B. Skills

1. Skill in the frequent use of calculators and computer programs with occasional use of drafting instruments.

This description is intended to indicate the kinds of tasks and levels of work difficulty that will be required of positions that will be given this title and shall not be construed as declaring what the specific duties and responsibilities of any particular position shall be. It is not intended to limit or in any way modify the right of any supervisor to assign, direct, and control the work of employees under his or her supervision. The use of a particular expression or illustration describing duties shall not be held to exclude other duties not mentioned that are of similar kind or level of difficulty.

2. Skill in effectively administering city contracts including dealing with utility agencies to coordinate projects and keeping them on schedule, dealing fairly and firmly with contractors to the City's best interest, researching and understanding the background of contracts, payments, and agreements, etc.
3. Skill in effective methods of public relations and maintaining effective working relations such as: pointing out design errors in a tactful manner to other engineers and consultants, resolving disagreements with other engineers and consultants diplomatically, discussing problems and special interests with the public in a patient, understanding but firm manner, effectively negotiating with contractors and developers to the City's interest in a firm but tactful manner, properly conducting public workshops in a manner which effectively communicates city goals and needs to the citizenry.
4. Skill in effective oral and written communication.

C. Abilities

1. Ability to prepare technical engineering designs of moderate complexity and to interpret plans and specifications prepared by others in review of designs for site and subdivision plans, highway plans, drainage or water and sewer plans, etc.
2. Ability to prepare moderately complex engineering reports and maintain records on City highway, maintenance, drainage, water and sewer and other projects including departmental and outside agency review comments, contract administration records, feasibility studies for alternative designs, drainage and/or complaint records.
3. Ability to develop effective solutions to engineering and construction problems on utility conflicts, drainage problems, contract disagreements, design errors, new requirements, etc.
4. Ability to conduct investigations and recommend solutions to such problems as citizen complaints on City and private development projects, maintenance projects, environmental permitting requirements, etc.

Working Conditions

The below stated working conditions are intended to provide a general overview of the environmental conditions inherent in the job setting, as well as the physical, mental, and sensory requirements necessary to perform the essential functions of positions in the noted job title. A more detailed description will be made available at the position (PCN) level.

NOTE: Per HR Policy 6.19, Americans with Disabilities, the City follows the requirements of the Americans with Disabilities Act (ADA) in all hiring and employment decisions. The City shall not discriminate on the basis of disability in its hiring and employment practices. The City shall make reasonable accommodations for the known physical or mental limitations of a qualified applicant or employee with a disability upon request unless the accommodation would cause an undue hardship on the operation of the City's business.

Physical Requirements: *Physical refers to the requirement for physical exertion and coordination of limb and body movement.*

Requires light to medium work that involves frequent walking, standing, sitting, kneeling, squatting, stooping, and climbing, with occasional lifting, gripping, and pushing and raising objects and exerting up to 50 pounds of force as well as routine keyboard operations

Mental Requirements: *Mental refers to the degree that the job involves cognitive activities, and use of mental processes*

Performs professional level work requiring the application of scientific, engineering, legal, or managerial methods in the solution of technical, administrative, or legal problems; applies extensive understanding of operating policies and procedures to solve complex problems or coordinates sub-professional work in these disciplines; requires continuous, detailed /close attention for accurate results, and frequent exposure to unusual pressures in office and field environments.

This description is intended to indicate the kinds of tasks and levels of work difficulty that will be required of positions that will be given this title and shall not be construed as declaring what the specific duties and responsibilities of any particular position shall be. It is not intended to limit or in any way modify the right of any supervisor to assign, direct, and control the work of employees under his or her supervision. The use of a particular expression or illustration describing duties shall not be held to exclude other duties not mentioned that are of similar kind or level of difficulty.

Environmental Conditions: *Environmental refers to job conditions inherent to the job setting, including those that may lead to injury or health hazards even though precautions have been taken.*

The job may risk exposure to extreme heat and/or cold, wet or humid conditions, extreme noise levels, fumes, odors, moving machinery, vehicular traffic, electrical shock, variable lighting, and toxic or caustic chemicals.

Sensory Requirements: *Sensory refers to hearing, sight, touch, taste, and smell required by the job.*

The job requires normal visual acuity, field of vision, hearing, speaking, color perception, normal sense of smell, and depth perception.

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